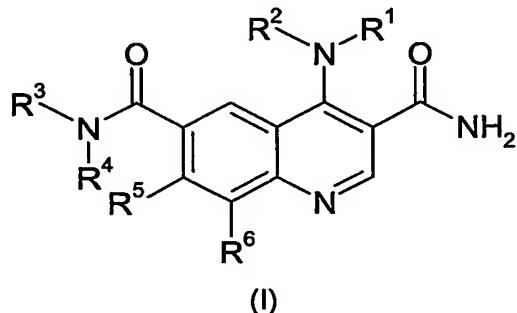


CLAIMS

1. A compound of formula (I) or a pharmaceutically acceptable salt thereof:

5



wherein:

10

R^1 is

Aryl optionally substituted by one or more substituents selected from the group consisting of: C_{1-6} alkoxy, halogen, -CN, C_{1-6} alkyl optionally substituted by one or more halogens, -OH, and C_{1-6} alkylCO;

15

Heteroaryl optionally substituted by C_{1-3} alkyl;

20

C_{3-7} cycloalkyl;

25

Heterocyclyl; or

Aryl fused to a heterocyclyl ring;

R^2 is hydrogen or C_{1-6} alkyl;

25

R^3 is

Hydrogen;

30

C_{1-6} alkyl optionally substituted by one or more substituents selected from the group consisting of: heterocyclyl (itself optionally substituted by C_{1-6} alkyl), R^7R^8NCO- , $R^9CONR^{10}-$, C_{1-6} alkoxy, $R^{11}R^{12}N-$, and C_{1-3} alkyl sulfonyl;

C_{3-7} cycloalkyl;

Aryl(CH₂)_m- wherein the aryl is optionally substituted by one or more substituents selected from the group consisting of: halogen and C₁₋₆ alkoxy;

Aryl fused to a heterocyclyl ring:

5

Aryl fused to a C₄₋₇ cycloalkyl wherein the cycloalkyl is optionally substituted by =O;

10 Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkyl, halogen and C₁₋₆ alkoxy;

15 Heterocycl(CH₂)_m- wherein the heterocycl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, C₁₋₆ alkyl;

R^4 is hydrogen or C_{1-6} alkyl;

20 R^3 and R^4 together with the nitrogen atom to which they are attached may form a heterocycl ring, which is optionally substituted by one or more substituents selected from the group consisting of: C_{1-6} alkylCO, C_{1-6} alkoxy, C_{3-7} cycloalkyl, OH, halogen, C_{1-6} alkyl, $-(CH_2)_mNR^{13}R^{14}$, $-(CH_2)_mCONR^{15}R^{16}$, $-(CH_2)_mNR^{17}COR^{18}$, heteroaryl, heteroaryl C_{1-4} alkyl, heteroarylCO, $-CO_2C_{1-6}$ alkyl and C_{1-6} alkoxy C_{1-4} alkyl;

25 R^5 is hydrogen or C_{1-6} alkyl;

R^6 is hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, fluorine, chlorine, or bromine.

m is 0-6;

30

R^{7-18} all independently represent hydrogen, C₁₋₈ alkyl:

R^7 and R^8 together with the nitrogen atom to which they are attached may form a heterocyclil ring;

35

R^{11} and R^{12} together with the nitrogen atom to which they are attached may form a heterocyclil ring;

40 R^{13} and R^{14} together with the nitrogen atom to which they are attached may form a heterocyclol ring.

2. A compound according to claim 1 wherein:

R¹ is

5 Aryl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkoxy, halogen, -CN, C₁₋₆ alkyl optionally substituted by one or more halogens, -OH, and C₁₋₆ alkylCO;

10 Heteroaryl optionally substituted by C₁₋₃ alkyl;

 C₃₋₇ cycloalkyl;

 Heterocyclyl; or

15 Aryl fused to a heterocyclyl ring;

R² is hydrogen;R³ is

20 Hydrogen;

 C₁₋₆ alkyl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₃ alkoxy and C₁₋₃ alkyl sulfonyl;

25 C₃₋₇ cycloalkyl;

 Aryl(CH₂)_m- wherein the aryl is optionally substituted by one or more substituents selected from the group consisting of: halogen and C₁₋₃ alkoxy;

30 Aryl fused to a heterocyclyl ring;

 Aryl fused to a C₄₋₇ cycloalkyl wherein the cycloalkyl is optionally substituted by =O;

35 Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkyl, halogen and C₁₋₆ alkoxy;

40 Heterocyclyl(CH₂)_m- wherein the heterocyclyl is optionally substituted by C₁₋₆ alkyl;

R⁴ is hydrogen or C₁₋₆ alkyl;

5 R³ and R⁴ together with the nitrogen atom to which they are attached may form a heterocycl ring, which is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, halogen, C₁₋₆ alkyl, -(CH₂)_mNR¹³R¹⁴, -CO₂C₁₋₆ alkyl and C₁₋₃alkoxyC₁₋₃alkyl;

R⁵ is hydrogen;

10 R⁶ is hydrogen or C₁₋₆ alkyl;

m is 0-6;

15 R¹³ and R¹⁴ are independently selected from C₁₋₆ alkyl.

15 3. A compound according to claim 1 or 2 wherein:

R¹ is selected from

20 Phenyl substituted by one or more substituents selected from the group consisting of: methoxy, halogen, methyl, trifluoromethyl, -OH and C₁₋₃ alkylCO;

Heteroaryl optionally substituted by methyl;

25 Phenyl fused to a heterocycl ring.

25 4. A compound according to any of claims 1 to 3 wherein:

R³ is selected from:

30 Hydrogen;

30 C₁₋₄ alkyl optionally substituted by methoxy or methylsulfonyl;

C₄₋₆ cycloalkyl;

35 Phenyl substituted by one or more substituents selected from halogen or methoxy;

35 Phenyl fused to a 5 membered heterocycl ring containing 1 or 2 oxygen atoms;

40 Phenyl fused to a C₄₋₇ cycloalkyl, wherein the cycloalkyl is substituted by =O;

Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by methyl, methoxy or halogen

5 Heterocycl(CH₂)_m- wherein the heterocycl contains either five or six atoms including one or two heteroatoms selected from nitrogen or oxygen and wherein the heterocycl is optionally substituted by C₁₋₂ alkyl.

10 5. A compound according to any of claims 1 to 3 wherein:

10 R³ and R⁴ together with the nitrogen atom to which they are attached may form a five or six membered heterocycl ring, which is optionally substituted by one or more substituents selected from the group consisting of: acetyl, fluoro, methyl, -N(CH₃)₂, -CO₂C₁₋₂alkyl and C₁₋₃alkoxyC₁₋₃alkyl.

15 6. A compound according to any of claims 1 to 5 wherein:

R⁵ represents hydrogen.

20 7. A compound according to any of claims 1 to 6 wherein:

R⁶ is methyl.

25 8. A compound according to any of claims 1 to 7 wherein:

R¹ is 2,3-dihydro-1-benzofuran-4-yl or 4-fluoro-3-(methyloxy)phenyl;

R² is hydrogen;

30 R³ is selected from:

C₁₋₄ alkyl optionally substituted by methoxy or methylsulphonyl;

Pyridyl(CH₂)_m;

35 Methylpyrazolyl;

Tetrahydropyranyl;

R⁴ is hydrogen or methyl;

40 R⁵ is hydrogen;

R⁶ is methyl.

9. A compound according to any of claims 1 to 8 wherein:

5 R¹ is 2,3-dihydro-1-benzofuran-4-yl, 1-methyl-1H-indazol-6-yl or 4-fluoro-3-(methyloxy)phenyl;

10 R² is hydrogen;

10 In a preferred embodiment R³ and R⁴ together with the nitrogen atom to which they are attached form a morpholinyl, a 2,6-dimethyl-4-morpholinyl, a 3-(ethoxycarbonyl)-1-piperidinyl, a 4-(N,N-dimethylamino)1-piperidinyl, a 4-acetyl-1-piperazinyl or a 4-[(2-methyloxy)ethyl]-1-piperazinyl ring.

15 R⁵ is hydrogen;

R⁶ is methyl.

20 10. A compound of formula (I) selected from the group consisting of:

4-[(3-(methyloxy)phenyl]amino)-N⁶-phenyl-3,6-quinolinedicarboxamide,

4-[(3-(methyloxy)phenyl]amino)-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,

N⁶,N⁶-dimethyl-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide,

25 N⁶-1,3-benzothiazol-6-yl-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide, N⁶-(1-methyl-1H-benzimidazol-5-yl)-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide,

4-[(3-(methyloxy)phenyl]amino)-N⁶-3-pyridinyl-3,6-quinolinedicarboxamide,

N⁶-[3-(methyloxy)phenyl]-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide,

30 N⁶-1,3-benzodioxol-5-yl-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide,

4-[(3-(methyloxy)phenyl]amino)-N⁶-(3-oxo-2,3-dihydro-1H-inden-5-yl)-3,6-quinolinedicarboxamide,

4-[(3-(methyloxy)phenyl]amino)-N⁶-[6-(methyloxy)-3-pyridinyl]-3,6-quinolinedicarboxamide,

35 N⁶-(4-chlorophenyl)-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide,

4-[(3-(methyloxy)phenyl]amino)-6-(1-piperidinylcarbonyl)-3-quinolinecarboxamide,

4-[(3-(methyloxy)phenyl]amino)-N⁶-(1,3-thiazol-2-ylmethyl)-3,6-quinolinedicarboxamide, N⁶-(1,3-dihydro-2-benzofuran-5-yl)-4-[(3-(methyloxy)phenyl]amino)-3,6-

quinolinedicarboxamide,

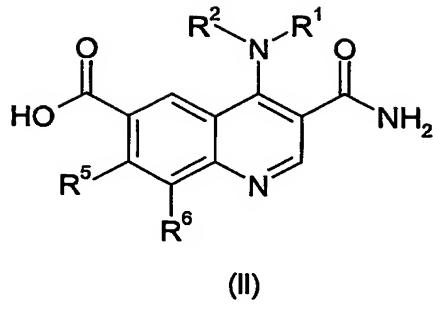
40 N⁶-[(3-methyl-5-isoxazolyl)methyl]-4-[(3-(methyloxy)phenyl]amino)-3,6-quinolinedicarboxamide,

*N*⁸-[(5-chloro-2-pyridinyl)methyl]-4-[(3-(methyloxy)phenyl)amino]-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-N-6~,8-dimethyl-N-6~-[2-(methyloxy)ethyl]-3,6-quinolinedicarboxamide

5 4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
8-methyl-4-[(1-methyl-1H-indazol-6-yl)amino]-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
4-[[4-fluoro-3-(methyloxy)phenyl]amino]-8-methyl-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
10 4-[[4-fluoro-3-(methyloxy)phenyl]amino]-N-6~,8-dimethyl-N-6~-[2-(methyloxy)ethyl]-3,6-quinolinedicarboxamide,
4-[[4-fluoro-3-(methyloxy)phenyl]amino]-N-6~,8-dimethyl-N-6~-[2-(methylsulfonyl)ethyl]-3,6-quinolinedicarboxamide,
15 6-[(4-acetyl-1-piperazinyl)carbonyl]-4-[[4-fluoro-3-(methyloxy)phenyl]amino]-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-N-6~,N-6~,8-trimethyl-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-6-{{4-[2-(methyloxy)ethyl]-1-piperazinyl}carbonyl}-3-quinolinecarboxamide,
20 4-(2,3-dihydro-1-benzofuran-4-ylamino)-6-[(2,6-dimethyl-4-morpholinyl)carbonyl]-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-6-[[4-(dimethylamino)-1-piperidinyl]carbonyl]-8-methyl-3-quinolinecarboxamide,
25 4-(2,3-dihydro-1-benzofuran-4-ylamino)-N-6~,8-dimethyl-N-6~-(4-pyridinylmethyl)-3,6-quinolinedicarboxamide,
6-[(4-acetyl-1-piperazinyl)carbonyl]-4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-3-quinolinecarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-N-6~-4-pyridinyl-3,6-
30 quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-N-6~-{(tetrahydro-2H-pyran-4-yl)-3,6-quinolinedicarboxamide,
4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-N-6~-(1-methyl-1H-pyrazol-5-yl)-3,6-quinolinedicarboxamide.
35 and pharmaceutically acceptable salts thereof.

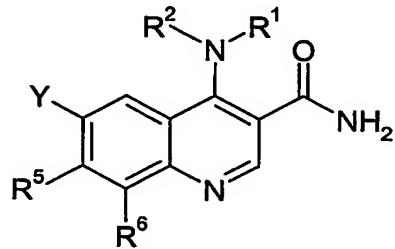
11. A process for the preparataion of a compound of formula (I) and pharmaceutically acceptable salts thereof as claimed in any of claims 1 to 10 which comprises:

40 (A) reacting a compound of formula (II)



5 wherein R^1 , R^2 , R^5 and R^6 are as defined above with a suitable amide coupling agent followed by treatment with an amine of formula R^3R^4NH wherein R^3 and R^4 are as defined above; or

(B) reacting a compound of formula (IV)



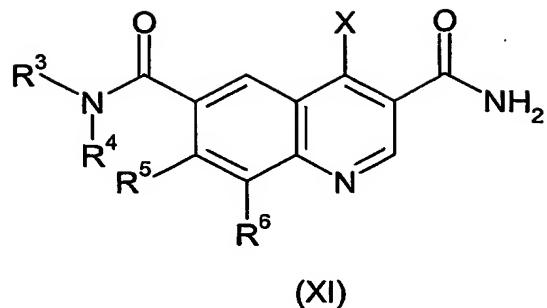
10

(IV)

wherein R^1 , R^2 , R^5 and R^6 are as defined above and Y represents chlorine, bromine or iodine, with carbon monoxide and an amine of formula R^3R^4NH , wherein R^3 and R^4 are as defined above, in a suitable solvent such as toluene, at a suitable temperature such as the reflux temperature of the solvent, in the presence of a suitable catalyst, such as a palladium catalyst, e.g. dichlorobis(triphenylphosphine)palladium(II) and a suitable base, such as triethylamine; or

(C) reacting a compound of formula (XI)

20



wherein R³, R⁴, R⁵, R⁶ are as defined above and X is halogen, by treatment with an amine of formula R¹R²NH, wherein R¹ and R² are as defined above.

5 (D) interconversion of a compound of formula (I) into another compound of formula (I); or

(E) deprotecting a protected derivative of a compound of formula (I).

10 12. A compound or a pharmaceutically acceptable salt thereof, according to any of claims 1 to 10 for use in therapy.

15 13. A compound or a pharmaceutically acceptable salt thereof, according to any of claims 1 to 10 for use in the treatment or prophylaxis of inflammatory and/or allergic diseases.

20 14. The use of a compound according to any of claims 1 to 10, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment or prophylaxis of inflammatory and/or allergic diseases.

25 15. A pharmaceutical composition which comprises a compound according to any of claims 1 to 10 optionally with a pharmaceutically acceptable carrier or excipient.

16. A pharmaceutical composition according to claim 15 which is suitable for inhaled administration.

17. A pharmaceutical composition according to claim 15 which is suitable for oral administration.